

AMENDMENTS TO THE SPECIFICATION

Please amend the related applications paragraph beginning on page 1, line 5 as follows in marked-up form:

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This application claims the benefit of application Serial No. 10/054,736 ~~Attorney Docket~~
~~No. 1759.2570 CIP6 (Express Mail No. EL889147179US)~~, filed October 24, 2001, and entitled
"Devices and Methods using an Expandable Body with Internal Restraint for Compressing
Cancellous Bone," now abandoned. This application is also a continuation-in-part of copending
Application Serial No. 09/754,451, filed January 4, 2001, which is a continuation of Application
Serial No. 08/871,114, filed June 9, 1997, now U.S. Patent No. 6,248,110, which is a continuation-
in-part of Application Serial No. 08/659,678, filed June 5, 1996, now U.S. Patent No. 5,827,289,
which is a continuation-in-part of Application Serial No. 08/485,394, filed June 7, 1995, now
abandoned, which is a continuation-in-part of Application Serial No. 08/188,224, filed January 26,
1994, now abandoned.

Please amend the Brief Description of the Drawings paragraph beginning on page 3, line 10 as follows in marked-up form:

FIG. 1 is a perspective view of a first embodiment of a balloon constructed in accordance with the teachings of the present invention, the embodiment being in the shape of a stacked doughnut assembly;

FIG. 2 is a vertical section through the balloon of FIG. 1 showing the way in which the doughnut portions of the balloon of FIG. 1 fit into a cavity of a vertebral body;

FIG. 3 is a schematic view of another embodiment of the balloon of the present invention showing three stacked balloons and string-like restraints for limiting the expansion of the balloon in various directions of inflation;

FIG. 4 is a top plan view of a spherical balloon having a cylindrical ring surrounding the balloon;

FIG. 5 is a vertical section through the spherical balloon and ring of FIG. 4;

FIG. 6 shows an oblong-shaped balloon with a catheter extending into the central portion of the balloon;

FIG. 6A is a perspective view of one way in which a catheter can be arranged relative to the inner tubes for inflating the balloon of FIG. 6;

FIG. 7 is a suction tube and a contrast injection tube for carrying out the inflation of the balloon and removal of debris caused by expansion from the balloon itself;

FIG. 8 is a vertical section through a balloon after it has been deflated and as it is being inserted into the vertebral body of a human;

FIGS. 9, and 9A, and 9B are side elevational view of a cannula showing how the protective sleeve or guard member can expand when leaving the cannula;

FIG. 10 is a perspective view of another embodiment of a balloon of the present invention formed in the shape of a kidney bean;

FIG. 11 is a perspective view of the vertebral bone showing the kidney shaped balloon of FIG. 10 inserted in the bone and expanded;

FIG. 12 is a top view of a kidney shaped balloon formed of several compartments by a heating element or branding tool;

FIG. 13 is a cross-sectional view taken along line 13— 13 of FIG. 12 but with two kidney shaped balloons that have been stacked;

FIG. 14 is a view similar to FIG. 11 but showing the stacked kidney shaped balloon of FIG. 13 in the vertebral bone;

FIG. 15 is a top view of a kidney balloon showing outer tufts holding inner strings in place interconnecting the top and bottom walls of the balloon;

FIG. 16 is a cross-sectional view taken along line 16— 16 of FIG. 15;

FIG. 17A is a dorsal view of a humpback banana balloon in a right distal radius;

FIG. 17B is a cross-sectional view of FIG. 17A taken along line 17B— 17B of FIG. 17A;

FIG. 18 is a spherical balloon with a base in a proximal humerus viewed from the front (anterior) of the left proximal humerus;

FIG. 19A is the front (anterior) view of the proximal tibia with the elliptical cylinder balloon introduced beneath the medial tibial plateau;

FIG. 19B is a three-quarter view of the balloon of FIG. 19A;

FIG. 19C is a side elevational view of the balloon of FIG. 19A;

FIG. 19D is a top plan view of the balloon of FIG. 19A;

FIG. 20 is a spherically shaped balloon for treating avascular necrosis of the head of the femur (or humerus) as seen from the front (anterior) of the left hip;

FIG. 20A is a side view of a hemispherically shaped balloon for treating avascular necrosis of the head of the femur (or humerus);

FIG. 21 is a balloon for preventing and/or treating hip fracture as seen from the anterior (front) of the left hip;

FIGS. 22A-C are schematic illustrations of a representative method and system for delivering a therapeutic substance to a bone according to the present invention; and

FIG. 23 is another embodiment of an expandable structure incorporating an internal expansion restraint;

FIGS. 24A-C are cross-sectional views of the expandable structure of FIG. 23 undergoing expansion in air;

FIG. 25A is a front view of another embodiment of an expandable structure for use in compressing cancellous bone and/or displacing cortical bone;

FIG. 25B is a side view of the structure of FIG. 25A;

FIG. 25C is a perspective view of the structure of FIG. 25A; and

FIG. 26A is side view of a cavity forming device carrying an expandable structure of the type shown in Figs. 23 and 24A to 24C;

FIG. 26B is a perspective view of the distal end of the cavity forming device shown in Fig. 26A, showing the assembly of the proximal end of the expandable structure to the distal end of the outer catheter body of the device;

FIG. 26C is a perspective view of the distal end of the cavity forming device shown in Fig. 26A, after the proximal and distal ends of the expandable structure have been secured, respectively, to the distal end of the outer catheter body and the distal end of the inner catheter body of the device;

FIG. 27 is another embodiment of an expandable structure; and

FIG. 28 is a side view of the distal tip of a cavity-forming device.



Please amend the paragraph beginning on page 17, line 35 as follows in marked-up form:

3
a Provision can be made for a balloon sleeve 71 for the balloon 60 as well as for all balloons disclosed herein. A balloon sleeve 71 (FIG. 9) is shiftably mounted in an outer tube 71a and can be used to insert the balloon 60 when deflated into a cortical bone. The sleeve 71 has resilient fingers 71b which bear against the interior of the entrance opening 71c of the vertebral bone 22 (FIGS. 9A and 9B) to prevent rearing or bunching of the balloon 60. Upon removal of the balloon sleeve, liquid under pressure will be directed into the tube 64 which will inflate parts 62 and 68 so as to compact the bone marrow within the cortical bone. Following this, the balloon 60 is deflated and removed from the bone cavity.